

**MAGNETIC ENHANCEMENT FOR MECHANICAL**  
**CONFINEMENT OF PLASMA**

**ABSTRACT OF THE DISCLOSURE**

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A plasma processing apparatus for processing a substrate is provided. A plasma processing chamber with chamber walls is provided. A substrate support is provided within the chamber walls. At least one confinement ring is provided, where the confinement ring and the substrate support define a plasma volume. A 10 magnetic source for generating a magnetic field for magnetically enhancing physical confinement provided by the at least one confinement ring is provided.